WHAT IS CLAIMED IS:

1. A filter unit suitable for use in a filter housing, the filter unit comprising:

superposed and spaced-apart inclined lamellar structures each having a lower end side opposite an upper end side;

a passage for a flow of liquid between each two of said lamellar structures, each passage having an inlet for receiving an inflow of liquid to be filtered and an outlet for discharging an outflow of filtered liquid;

filtering means in each of said passages for obstructing the flow of liquid and retaining particulate matter contained in the liquid; and

mounting means for mounting the filter unit vertically in the filter housing.

2. A filter unit as claimed in claim 1, wherein the lamellar structures have the shape of hollow truncated structure.

3. A filter unit as claimed in claim 2, wherein the inlet of each of said passages is located on the lower end side of the respective lamellar structures and the outlet is located on the upper end side of the respective lamellar structures, whereby the flow of liquid in the passages is ascendant.

4. A filter unit as claimed in claim 3, wherein each of said lamellar structures in the form of hollow truncated structures has an outer peripheral edge and an inner edge smaller than the outer peripheral edge, the outer peripheral edge being the lower end side of the lamellar structure and the inner edge being the upper end side of the lamellar structure, whereby the liquid enters the passage between two truncated structures from the outer peripheral edge thereof and flows upwardly towards the inner edge thereof.

5. A filter unit as claimed in claim 3, wherein each of said lamellar structures in the form of truncated cones has an outer peripheral edge and an inner edge smaller than the outer peripheral edge, the outer peripheral edge being the upper end side of the lamellar structure and the inner edge being the lower end side of the lamellar structure, whereby the liquid enters the passage between two truncated cones from the inner edge thereof and flows upwardly towards the outer peripheral edge.

6. A filter unit as claimed in claim 3, wherein each of said two lamellar structures includes an upper lamellar structure and a lower lamellar structure, and the filtering means in each of said passages comprises:

- an overflow dam wall extending upright from said lower lamellar structure and having a top edge spaced apart from an underside surface of the upper lamellar structure; and

- a linear interstice between the top edge of the dam wall and the bottom surface of the upper lamellar structure.

7. A filter unit as claimed in claim 6, wherein the overflow dam wall in each of said passages follows a sinuous path.

8. A filter unit as claimed in claim 7, wherein the continuous dam wall in each of said passages has a top edge with a corrugated relief.

9. A filter unit as claimed in claim 6, wherein the overflow dam wall in each of said passages comprises a plurality of vertical slots to further filter the liquids.

10. A filter unit as claimed in claim 4, comprising linking means for linking the lamellar structures one to another in superposition.

11. A filter unit as claimed in claim 10, wherein the linking means comprises:

- a plurality of tabs extending vertically from the inner edge of each truncated structure; and

- a plurality of tab receiving elements in the inner edge of truncated structure, each tab receiving element being shaped for interconnection with a tab of another truncated cone.

12. A filter unit as claimed in claim 11, wherein each of said tabs has an end in the form of a hook and each of said tab receiving elements is in the form of a vertical groove into which a tab of another truncated structure is slidably insertable.

13. A filter unit as claimed in claim 2, wherein said hollow truncated structure is a hollow truncated cone.

14. A combination of a filter unit as claimed in claim 1 with a filter housing,

- the filter housing having an inlet in a bottom portion thereof for receiving an inflow of liquid to be filtered and an outlet in a top portion thereof for discharging an outflow of filtered liquid; and

- the filter unit being mounted vertically in the filter housing by means of the mounting means;

the combination further comprising:

- a reception chamber in the filter housing in fluid communication with the inlet of the housing and with the inlets of the filter unit, the liquid to be filtered entering the housing via the inlet thereof and flowing across the reception chamber to enter the inlets of the filter unit; and

- a discharge chamber in the filter housing in fluid communication with the outlets of the filter unit and the outlet of the filter housing, the filtered liquid discharged at the outlets of the filter unit flowing across the discharge chamber towards the outlet of the filter housing.

15. A combination as claimed in claim 14, wherein all the structures are similar and have the shape of hollow truncated structures.

16. A combination as claimed in claim 15, wherein the inlet of each of said passages is located on the lower end side of the respective lamellar structures and the outlet is located on the upper end side of the respective lamellar structures, whereby the flow of liquid in the passages is ascendant.

17. A combination as claimed in claim 16, wherein each of the lamellar structures in the form of hollow truncated structures has an outer peripheral edge and an inner edge smaller than the outer peripheral edge, the outer peripheral edge being the lower end side of the lamellar structure and the inner edge being the upper end side of the lamellar structure, whereby the reception chamber is located all around the filter unit and the discharge chamber is in a centrally located zone of the filter unit.

18. A combination as claimed in claim 17, wherein the filter housing has a top end and a bottom end, the inlet of the filter housing being an opening in the bottom end thereof, and the combination further comprises:

- an inlet chamber extending at said bottom end of the filter housing, the inlet chamber being in fluid communication with the reception chamber of the filter housing via

an outlet of the inlet chamber hermetically connected to the inlet of the filter housing, the inlet chamber having a sidewall provided with a plurality of slots sized and shaped for receiving and prefiltering liquid to be filtered, whereby the liquid to be filtered enters the inlet chamber via the slots thereof and then flows across the inlet chamber and upwardly in the reception chamber of the filter housing.

19. A combination as claimed in claim 17, further comprising:

- an upper filter unit located in the top portion of the housing on top of said filter unit, hereinafter referred to as the lower filter unit, for further filtering liquid previously filtered in the lower filter unit, the upper filter unit comprising:

- superposed and spaced-apart truncated hollow structures similar in shape and size with the truncated structures of the lower filter unit and being in registry with the same, the upper filter unit having a lowermost truncated structure superposed on an uppermost truncated structure of the lower filter unit, the hollow truncated structures of the upper filter unit having an upper end side and a lower end side, and a centrally located zone on top of the centrally located zone of the lower filter unit;

- a passage for a flow of liquid between each two of said spaced-apart truncated structures having an inlet for receiving an inflow of liquid to be filtered and an outlet for discharging an outflow of filtered liquid; and

- filtering means in each of said passages for obstructing the flow of liquid and retaining particulate matter contained in the liquid;

- a reception chamber for the upper filter unit located in the centrally located zone thereof, the reception chamber being in fluid communication with the discharge chamber of the lower filter unit and with the inlet of each of the passages of the upper filter unit;

- a discharge chamber for the upper filter unit located in the top portion of the filter housing around said upper filter unit, the discharge chamber being in fluid communication with the outlet of each of the passages of the upper filter unit and with the outlet of the housing; and

- means for hermetically separating the reception chamber of the lower filter unit and the discharge chamber of the upper filter unit.

20. A combination as claimed in claim 19, comprising a cover adapted to hermetically fit on the top end of the filter housing.

21. A combination as claimed in claim 20, comprising a hanger mounted in the cover, the hanger having a lower portion for extending downwardly in the filter housing and brackets at said lower portion connectable to an uppermost truncated cone for suspending the filter unit in the filter housing.

22. A combination as claimed in claim 21, wherein the means for hermetically separating the reception chamber of the lower filter unit and the discharge chamber of the upper filter unit comprises:

a restriction in the side wall of the filter housing separating the bottom portion and the top portion thereof; and

a watertight liner mounted at said restriction.

23. A combination as claimed in claim 15, wherein said hollow truncated structure is a hollow truncated cone.